ON Semiconductor

Test Procedure for the NCP1090GEVB Evaluation Board

1. Equipment required

- Power-over-Ethernet enabled switch (at for NCP1093/NCP1094)
- Electronic Load
- Power Supply

2. Test procedure

1. Connect the input connector to the PoE switch. The PGOOD led can briefly pulse, followed by the VPORTP led lighting up. VPORTP – RTN should measure between 37V and 57V
2. Connect an electronic load to VPORTP – RTN. Set the electronic load to constant current, with the current setting depending on the board type:

    NCP1090, NCP1091, NCP1092: 230 mA

    NCP1093, NCP1094: 450 mA

    The output voltage should remain constant, and the PGOOD led should remain on.

3. Connect a computer to the Ethernet output. Ping another computer connected to the switch.
4. Connect a power supply to the auxiliary input. Set the power supply to 24V
5. (NCP1093, NCP1094 only) Voltage between VPORTP – RTN should be ~23V
6. (NCP1090, NCP1091, NCP1092 only) Disconnect the Ethernet cable. Voltage between VPORTP – RTN should be ~23V
7. Set the electronic load to 2A (or power supply maximum). The output voltage should remain above 20V